



Dynamic Processes in Stream Ecosystem Restoration - Sweetwater Creek, Idaho

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EWN Lightning Talks
15 April 2019



Steelhead trout, NOAA Fisheries

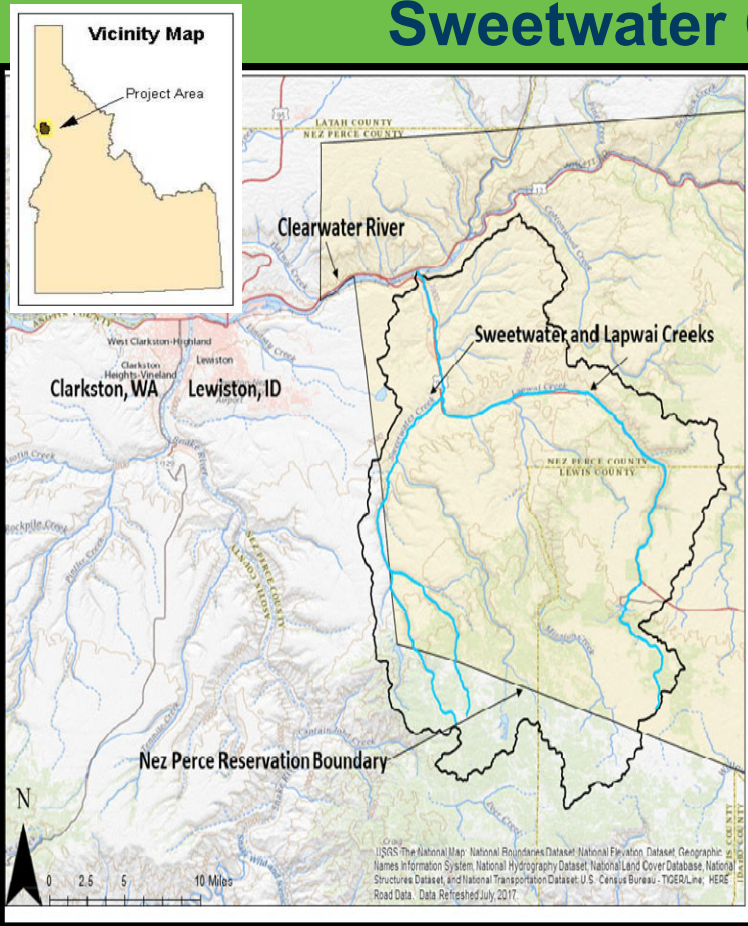


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DISCOVER | DEVELOP | DELIVER

Sweetwater Creek Ecosystem Restoration Project



- Working with Nez Perce Tribe under Section 203 (WRDA) Tribal Partnership Program (TPP)
- Allows USACE to work collaboratively with American Indian Tribes on water resources feasibility studies
- Design and construction are authorized to be carried out without going back to congress for further authorization (projects where fed share is <\$10M)
- Lewiston Orchards Irrigation Diversion reduced summer baseflow from 15+cfs to ~1cfs
- 2010 NOAA Fisheries BiOp found Sweetwater Creek a significant source population, prior to LOID
- TPP allows multiple authorized purposes: Ecosystem Restoration for Hé-yey, Nez Perce for Snake River Basin Steelhead Trout (*Oncorhynchus mykiss*), threatened under ESA
- Enhance cultural resources, e.g. Coho salmon and native plants, plus watershed assessment and FRM

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To enhance and protect aquatic habitat for salmonid spawning and rearing:

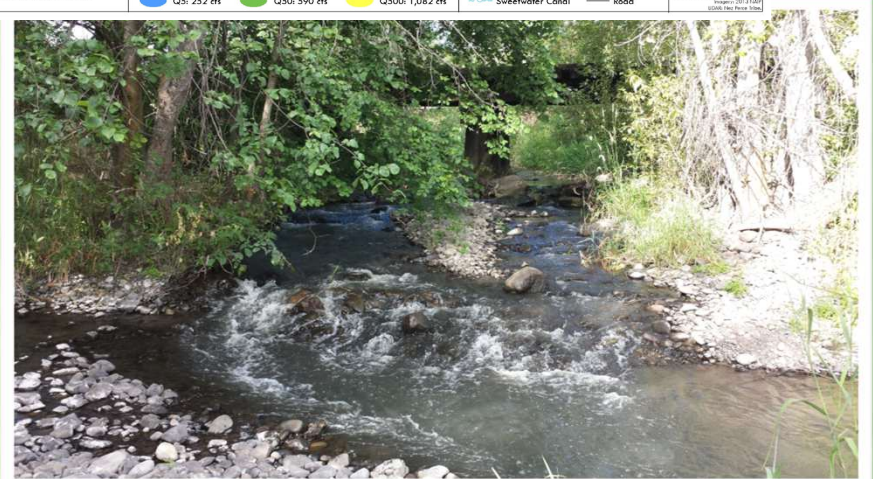
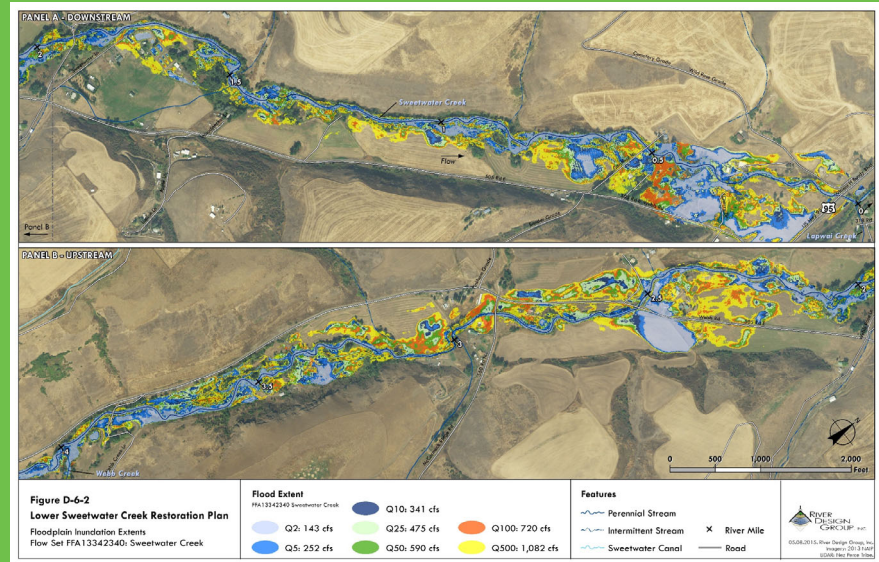
- Hydrology, Hydraulics, Geomorphology to achieve objectives and minimize risk
- Natural large wood recruitment to increase habitat complexity, and
- Sediment transport dynamics to retain spawning gravels
- Collaboration and stakeholder engagement
- Socioeconomic and ecosystem benefits



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Example of a Protection Reach

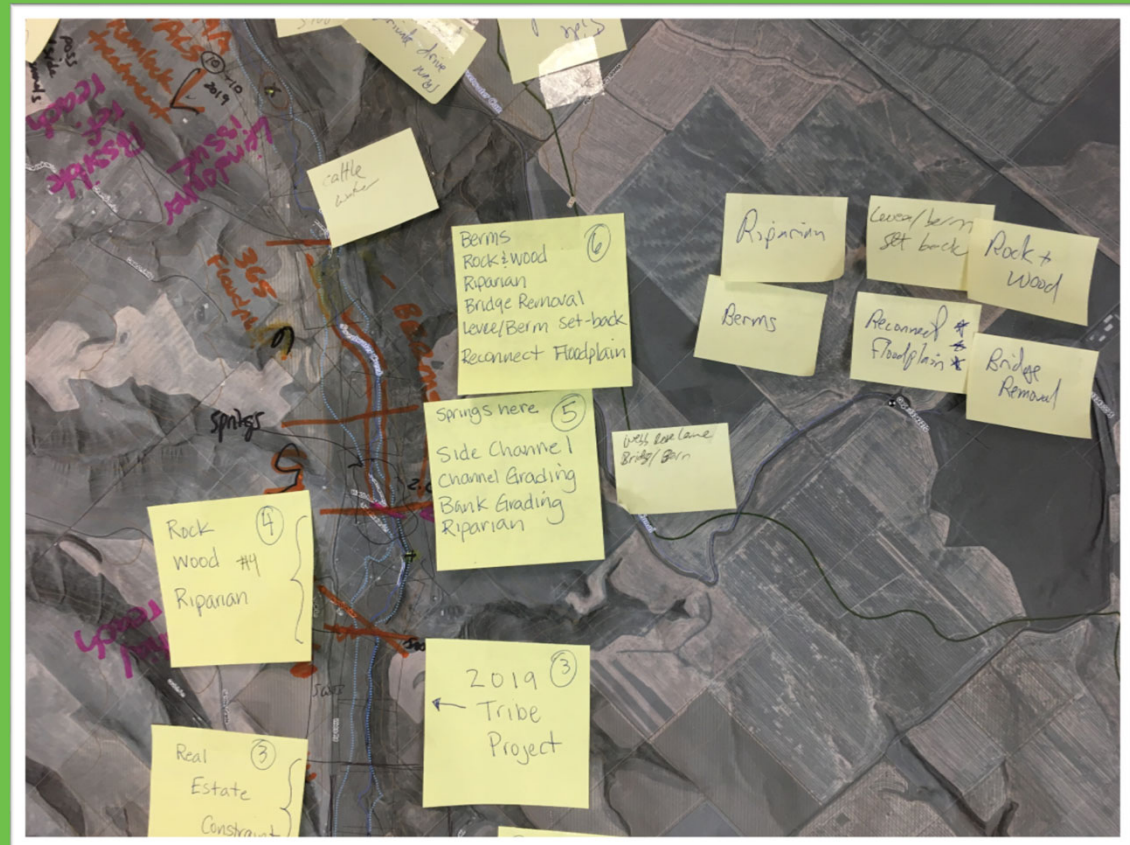


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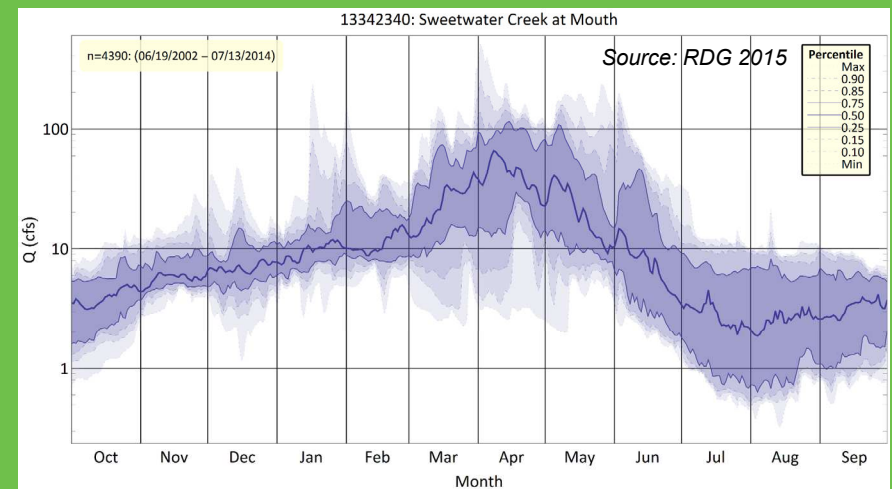
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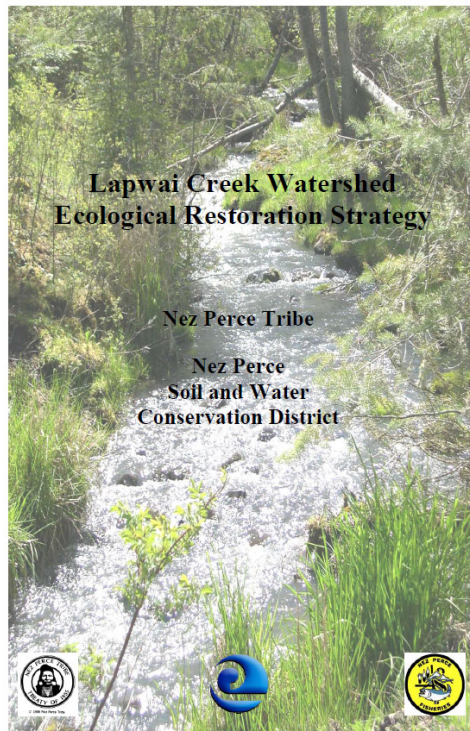
**Lapwai Creek
Aquatic Assessment**

Prepared By

**The Center for Environmental Education,
Washington State University**

For

Nez Perce Tribe, Watershed Department



Document ID #119838
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Report was completed under BPA contract #48784



**Protect and Restore the
Lapwai Creek Watershed**

Annual Progress Report CY2009

May 2009 – April 2010

Prepared by:

Bobby Hills

Nez Perce Tribe
Department of Fisheries Resource Management
Watershed Division
Lapwai, ID

Funded by:

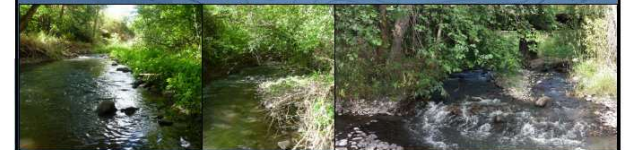
U.S. Department of Energy
Bonneville Power Administration
Division of Fish and Wildlife
P.O. Box 3621
Portland, OR 97208-3621

BPA Project Number: 1999-017-00
Contract Number: 37309

January 28, 2011

**Restoration Plan for
Lower Sweetwater Creek**

FINAL REPORT



Lower Sweetwater Creek, and Confluence with Lapwai River

Prepared For

Nez Perce Tribe
DFRM – Watershed Division
c/o Bobby Hills
P.O. Box 365
Lapwai, Idaho 83540



Prepared By

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- Riffle-run-pool sequencing
- Complex wood structures
- Quality pool formation
- Seasonally inundated floodplain
- Side-channel connectivity
- Riparian vegetation type and structure for shade, wood, and allochthonous energy source



Thank You!

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